

LOW-LOSS TRANSMISSION LINE STRUCTURE**ABSTRACT**

A microstrip transmission line structure is disclosed wherein a transmission element is attached to a substrate in a way such that the element is suspended above the substrate separated by a predetermined distance from a ground plane. In one embodiment, the transmission element is supported by a plurality of support legs that are disposed in a way such that the transmission element is suspended above the substrate. In another embodiment, a portion of the substrate is removed in a way such that, when the transmission element is disposed on the substrate, the line is separated from the ground plane by a predetermined distance.